



Requirements Management Training Initiative

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Overview

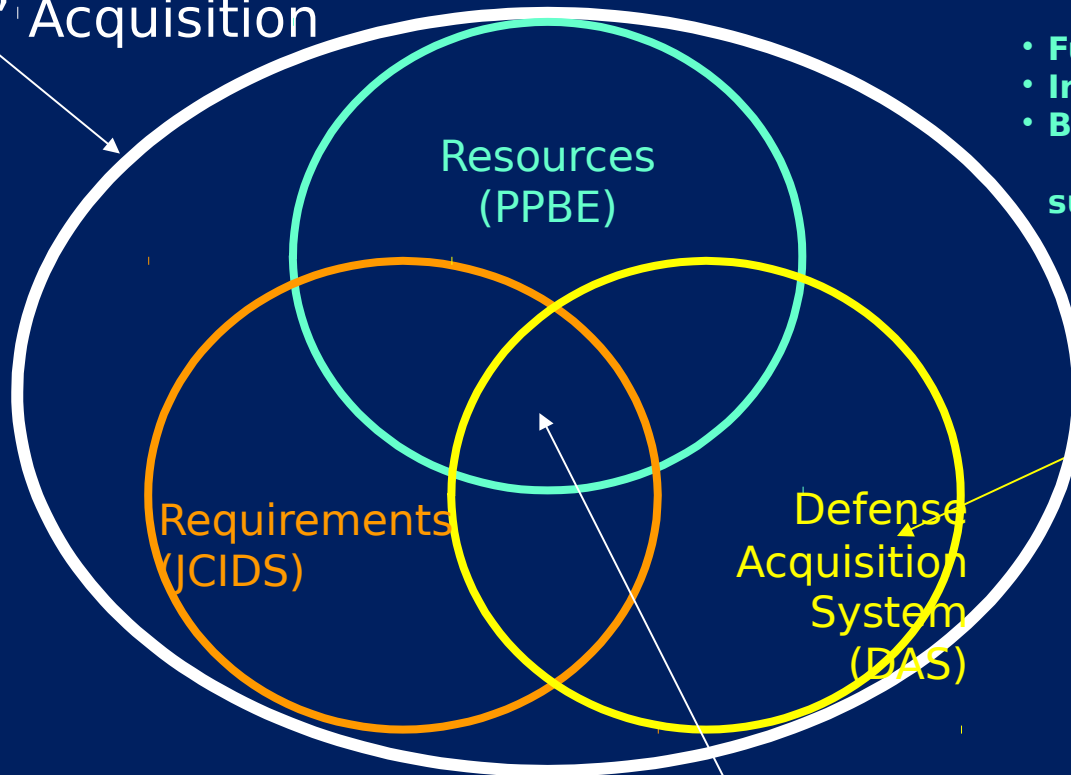
- ★ What is the problem? Who are we trying to reach?
- ★ The history of Requirements Management Training
- ★ Three waves of training
 1. Answer the mail
 2. Meet immediate student needs
 3. Reach out with alternative approaches
- ★ RQM 310 simulation exercises

Determining and Communicating Requirements

- ★ “The Manager in the Muddy Boots”
- ★ Requirements is not a career field
- ★ The RM has little time to learn the job
- ★ How do we know what to ask for?
- ★ How do we communicate those requirements effectively?

Big "A" Acquisition

Big "A" Acquisition



- Funding instability
- Insufficient resource trade space
- Budget not properly phased or of insufficient magnitude to support planned development

Small "a" Acquisition

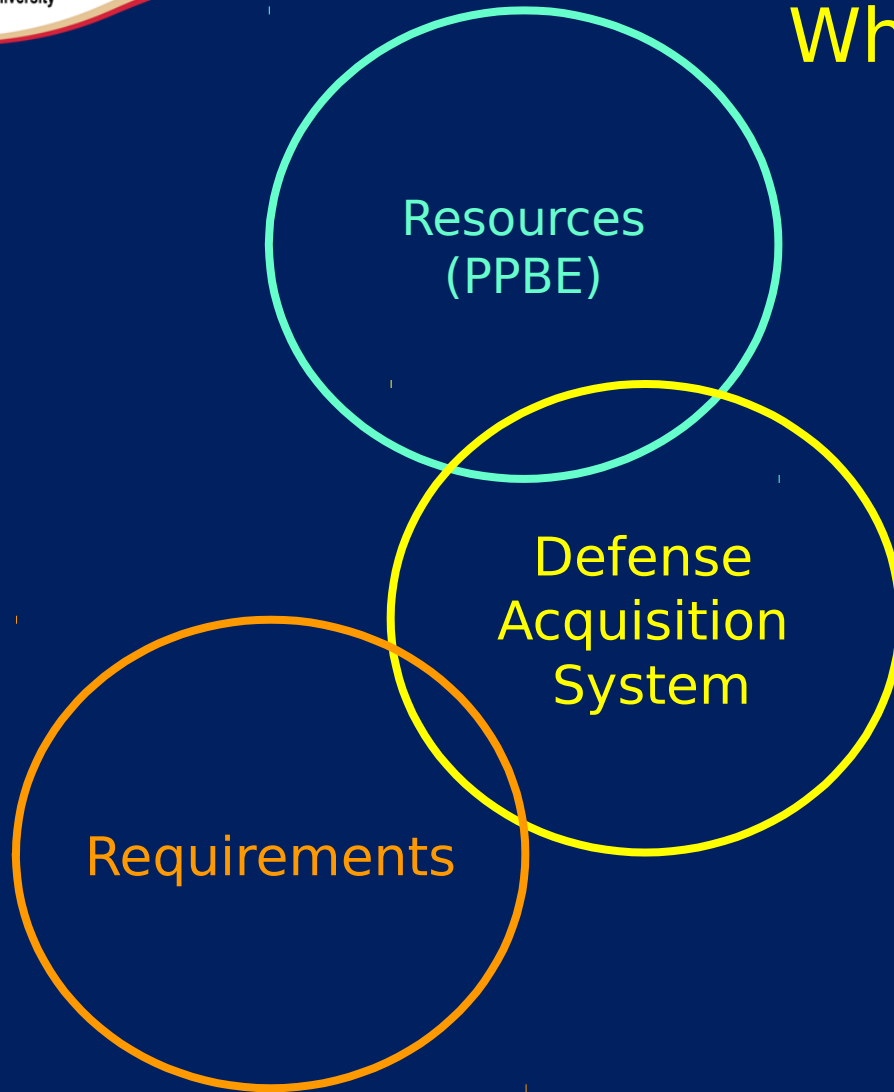
- Immature technologies
- Inadequate systems engineering
- Inadequate requirements flow-down, traceability, or decomposition
- Insufficient schedule trade space
- Inadequate implementation of Earned Value Management System
- Lack of time and assets for testing

- Inter- and intra-departmental stakeholder coordination and support

- Lack of JROC-validated requirements documents for basic program (ICD, CDD, CPD)
- Inadequate requirements for basic program and any increments
- Requirements "creep"
- Critical dependence on external programs with developmental issues

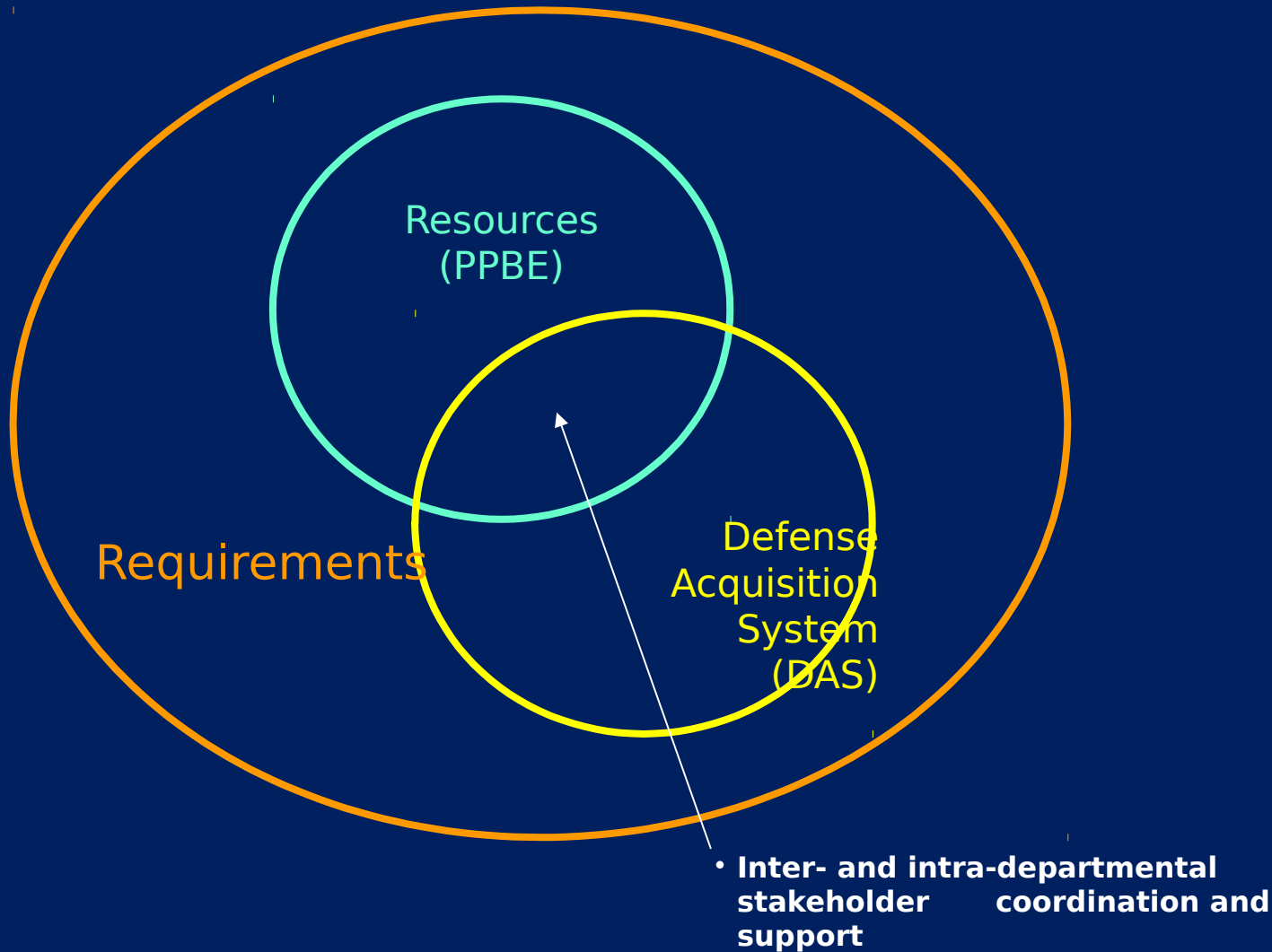
Synchronize JCIDS, DAS, and PPBE to deliver capabilities to Warfighters

What Really Happens



Little Overlap
No Communications
Poor Agreement

Put the Warfighter in Charge!



In an ideal world, warfighters synchronize everything! Deliver the capabilities

2007 NDAA – Section 801

★ Section 801 of FY 2007 National Defense Authorization Act

- Establish a certification program for DoD personnel responsible for generating requirements for major defense acquisition programs (MDAPs)
- Certify by September 30, 2008.
- The certification program should address:
 - Interrelationship between requirements, budget, and acquisition,
 - Developing joint operations requirements,
 - Early baselining of program requirements and “the adverse effect” of changing or adding requirements, and
 - Importance of technology maturity and alternatives.

Reports to Congress



DEPUTY UNDER SECRETARY OF DEFENSE
3015 DEFENSE PENTAGON
WASHINGTON, DC 20301-3015

ACQUISITION AND
TECHNOLOGY

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6050

APR 14 2008

Dear Mr. Chairman:

This letter is the final report pursuant to Section 801, Requirements Management Certification Training Program, of the John Warner National Defense Authorization Act for FY 2007, Public Law 109-364.

The Department of Defense is continuing to implement aggressively a training program to certify military and civilian personnel with responsibility for generating requirements for Major Defense Acquisition Programs (MDAPs). Members from Department of Defense requirements, acquisition, and resource communities developed 112 competencies for requirements management personnel. These competencies cover 24 major topic areas to include the interrelationship between the requirements, resource, and acquisition processes as well as the importance of stable, technically mature, feasible and achievable requirements. The competencies define the content of requirements management learning assets.

The first learning asset of our training program was piloted in August 2007 and fully deployed in October 2007. It is an on-line course titled Capabilities Based Planning (CBP). The course explains the Department's CBP framework, which integrates requirements, acquisition and programming, planning, budget and execution systems.

- Memo dated 14Apr2008
- Final Report to John McCain and Carl Levin
- Discusses the online assets & the Advanced RQM Course (RQM 310)
- Thus far, we are meeting our obligations

Another on-line course, Requirements Management Certification Course (RMCC), is in development. It will be deployed in July 2008. The course will address the full set of requirements management competencies. Personnel responsible for generating requirements for MDAPs will be required to complete CBP and RMCC within six months of assignment of those responsibilities. Completion of the two courses will constitute certification. The individuals who now have those responsibilities will complete the training by September 30, 2008. The sponsor for the requirements community is the Vice Director, Joint Staff J-8.

A third course, Advanced Requirements Management Course, is planned for development in 2009. A classroom course for supervisory personnel, it will use cases and exercises to strengthen analysis, evaluation and decision making associated with defining, managing and resourcing capabilities for our warfighters.



Final Report Continued

A similar letter is being sent to the Chairman and Ranking Member of the House Committee on Armed Services, United States House of Representatives.

Sincerely,

A handwritten signature in black ink that reads "James I. Finley". The signature is stylized with a large, looping "J" and "F".

James I. Finley

cc:
The Honorable John McCain
Ranking Member

Secretary Young Memorandum



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

SEP - 2 2008

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
COMBATANT COMMANDERS
ASSISTANT SECRETARY OF DEFENSE (NETWORKS
AND INFORMATION INTEGRATION)/DOD CHIEF
INFORMATION OFFICER
DIRECTOR, OPERATIONAL TEST AND EVALUATION
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Requirements Management Certification Training Program Policy

Section 801 of the National Defense Authorization Act of FY 2007 requires the Under Secretary of Defense for Acquisition, Technology and Logistics to establish competency requirements and a training program to certify DoD military and civilian personnel with responsibility for generating requirements for Major Defense Acquisition Programs (MDAPs).

Effective September 30, 2008, DoD personnel with authority to generate requirements for a MDAP may not continue to participate in the requirements generation process unless they have completed the certification training program. The attachment establishes the policy for compliance with the congressional requirement and is effective immediately. To ensure we meet the September 30 requirement, a flag-level meeting of all organizational points of contact was held July 11 to review the requirements management certification training program.

Within 30 days from the date of this memorandum, please update the list of positions that fall under the mandatory certification requirements, and identify by name the current occupants of those positions. Provide the requested information to Ms. Danielle Buckon at Danielle.buckon@osd.mil or 703-607-4047 and copy Mr. Pat Wills at Patrick.Wills@dau.mil or 703-805-4563.

John J. Young, Jr.

Attachment:
As stated

cc:
DepSecDef
President, DAU

*I WOULD ADD THAT THE GOAL OF THIS PROCESS
SHOULD BE FEWER REQUIREMENTS AND DRAMATICALLY
SHORTER REQUIREMENTS DOCUMENTS AND
CORRESPONDINGLY GREATER DESIGN FLEXIBILITY. Ag*

- Memo dated 2 Sep 2008
- First edition of the "RMCT Policy and Guidelines" document

Requirements Management Certification Courses

CLM 041 Capabilities Based Planning	RQM 110 Core Concepts for Requirements Management	RQM 310 Advanced Concepts and Skills	RQM 403 Requirements Management Executive Overview
4 - 6 hours	24 - 30 hours	4.5 days	1 day
A, B, C	B, C	C	D (GO/FO/SES)

Required Training Level Guidelines

A	Contribute to the Requirements generation and capability development process in various capacities to include: Requirements analysis, subject matter or domain expertise, document staffing and coordination and / or administrative support
B	Significantly involved with Requirements generation and capability development in specific capacities, i.e. study leadership, planning, writing, adjudicating comments, and facilitating inter-organizational development and coordination of Requirements documents
C	Designated by organizational leadership for advanced Requirements instruction; Primary duties involve leadership / supervisory roles in requirements generation and capability development; Organizational representative in pertinent program management and Requirements forums

The “First Wave” of Requirements Management Training

- ★ CLM 041 – Capabilities-Based Planning (CBP)
- ★ RQM 110 – Core Concepts for Requirements Management
- ★ RQM 403 – Requirements Management Executive Overview (REMO)

- ★ Overview of the DoD guidance and policies supporting capabilities-based planning
- ★ Outcome: Explain the Processes, Roles, Responsibilities, and Challenges Involved in Implementing Capabilities-Based Planning (CBP)
- ★ Graduates: 8,408
- ★ Issue: Maintaining currency

- ★ Covers both the requirements manager role and requirements management within the “Big A” acquisition construct
- ★ Outcome: Describe the role of the Requirements Manager
 - Identify requirements and capabilities
 - Recognize the roles of stakeholders
 - Explain processes, tools, and formats
 - Discuss DoD policies, procedures, and management tools
- ★ Graduates: 3,306
- ★ Issue: Scope and currency

RQM 110 Subjects

1. RQM 110 Overview
2. DoD Requirements
3. Approving Requirements
4. Defense Acquisition
5. The Acquisition System
6. Systems Engineering
7. Test and Evaluation
8. Cost Estimating
9. Resource Allocation
10. Logistics
11. Science and Technology
12. Analysis
13. Staffing and Validation
14. DOTMLPF and the DCR
15. Rapid Response
16. The ICD Sets the Stage
17. The CDD Determines Development
18. The CPD Tells What to Produce
19. Building KPPs
20. Building Requirements
21. Course Summary

- ★ Provide General/Flag Officers and members of the Senior Executive Service with an executive-level understanding of the role of the requirements manager
- ★ Objective: Review and approve requirements as they move through the JCIDS process and into the Defense Acquisition and PPBE systems
- ★ Graduates: 211
- ★ Issue: Scheduling

The “Second Wave” of RM Training

- ★ RQM 310 – Advanced Concepts and Skills for Requirements Management
- ★ CLR 252 – Developing Requirements
- ★ CLR 250 – Capability-Based Assessments (CBAs)

RQM 310 – Requirements Management Concepts and Skills

- ★ 4.5-day classroom course which takes an in-depth look into the relationships between the JCIDS, DAS, and PPBE
 - Student pilot: 21 June 2010
 - First offering: 16 August 2010
 - Current schedule - 6 classes per year; 30 students per class
- ★ Attendance is controlled by the DACMs

What Does RQM 310 Add?

- ★ Takes advantage of the classroom environment:
 - Discussions
 - Exercises
 - Simulations
 - Presentation to notional FCB
- ★ Puts CBA development and documentation in context
- ★ Examines how to develop and apply KPPs and KSAs
- ★ Addresses Urgent Operational Needs

Our Proposed RQM 310 Class Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	Organizational	RM Activities: MDD to Milestone A	Urgent Operational Needs	Capstone Briefing Preparation	Capstone Briefing to Notional FCB
	Review RQM 110	Developing Requirements	Emerging Realities		Review and Summary
PM	Organizing CBAs	RM Activities: Milestone A to Milestone B	JCIDS Simulation	Briefings to Faculty	Graduation
	Assessing CBAs	RM Activities: Milestone B to IOC	Presentation Planning		

Simulations and Exercises

- ★ Description: Simulate a variety of tasks a Requirements Manager needs to resolve as a capability moves through the JCIDS and the DAS
- ★ Objective: Given documentation from analysis and from acquisition life-cycle phases, to include Urgent Operational Need situations, apply and defend appropriate solutions in order to get those solutions through the DAS
- ★ Three Simulation-Based Exercises (SBEs)
- ★ One Team-Based Simulation (TBS) (JCIDS Exercise)

A Requirements Simulation Screen



CLR 250 – Capabilities-Based Assessments (CBA)

- ★ **Description:** An online module that:
 - Examines how to conduct CBAs &
 - Outlines assessment results documentation
- ★ **Objective:** Students have the:
 - Knowledge, skills, and abilities to conduct & document CBAs

CLR 250 Lesson Structure:

★ CBAs provide analytical underpinnings to deliver required capabilities to Warfighters

Lesson #1 – CBA Definitions & Background

Describes the nature of effective CBAs

Lesson #2 – Pre-Planning Research

Connects CBA process to overarching guidance & proven analytical methods

Lesson #3 – CBA Team Building & Planning

Advises on how to organize and execute

Lesson #4 – CBA Study Phases

Examines the various CBA study phases in detail

CLR 250 Lesson Screenshot:

Capabilities-Based Assessment (CBA) Definitions - Windows Internet Explorer

http://clr250.ptcourseware.com/course/CLR250_M00L01/current/CLR250_M00L01T00/main.html#CLR250_M00L01T00_110

Capabilities-Based Assessment (CBA) - CLR 250
Capabilities-Based Assessment (CBA) Definitions

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Material Approaches Recommended by CBA

There are three materiel approaches recommended by CBAs through Initial Capabilities Documents (ICDs):

Development and Fielding of Information Systems

Evolution of Existing Systems

Breakout Systems

[100%](#) [↩](#) [CC](#)

[Create Comment](#)

11 ▾

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CLR 250 Lesson Screenshot:

Capabilities-Based Assessment (CBA) Definitions - Windows Internet Explorer

http://clr250.ptcourseware.com/course/CLR250_M00L01/current/CLR250_M00L01T00/main.html#CLR250_M00L01T00_110

Capabilities-Based Assessment (CBA) - CLR 250
Capabilities-Based Assessment (CBA) Definitions

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Material Approaches Recommended by CBA

There are three material approaches recommended by CBAs through Initial Capabilities Documents (ICDs):

Development and Fielding of Information Systems

Evolution of Existing Systems

Breakout Systems

Evolution of Existing Systems

Solutions that significantly improve existing capabilities. This may include replacing an existing system with a newer, more capable system, or simple recapitalization. For example, upgrading the M1A1 Tank with the M1A2 or reopening the C-5 line in the 1980s.

Close X

Select each item above for more information.

Create Comment

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CLR 252 – Developing Requirements

- ★ Description: CLR 252 is an online module to describe how to develop Key Performance Parameters (KPPs), Key System Attributes (KSAs) and the relationship of the KPPs and KSAs to Measures of Effectiveness (MOEs), Measures of Performance (MOPs), and Measures of Suitability (MOSs).
- ★ Objective: Given warfighter feedback and analysis results, critique requirements statements to include well-written KPPs and KSAs; then relate those requirements statements to Measures of Effectiveness (MOEs), Measures of Performance (MOPs), and Measures of Suitability (MOSs)

Requirements Lessons

- ★ Just what is a Requirement?
- ★ How do we develop Requirements?
- ★ How do the different levels of Requirements fit together?

Lesson #1 – Requirements Foundation

Lesson #2 – How to Write a Good Requirement

Lesson #3 – KPPs, Performance Attributes and
Requirements Creep

Lesson #4 – Measures of Performance and Requirements
Validation

CLR 252 Lessons

Developing Requirements - CLR 252

KPPs and Performance Attributes

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Types of Mandatory KPPs

- [Survivability KPP](#) includes attributes that contribute to the survivability of a manned system.
- [Force Protection KPP](#) includes attributes that contribute to the protection of personnel by preventing or mitigating hostile actions against friendly personnel, military and civilian.
- [Sustainment KPP](#) includes attributes consisting of three key factors: Availability, Reliability, and Ownership Cost.
- [Net-Ready KPP \(NR-KPP\)](#) includes attributes developed for all information technology (IT) and national security systems (NSS).



CLR 252 Lessons

Developing Requirements - CLR 252

KPPs and Performance Attributes

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Selectively Applied Mandatory KPPs

The JROC has defined training and energy efficiency KPPs to be selectively applied to programs.

- [System Training KPP](#) - Training should be considered early in the capabilities development process beginning with the analyses that support development of the ICD and continues with development of the CDD.
- [Energy Efficiency KPP](#) - Include fuel efficiency considerations in systems consistent with future force plans and approved planning scenarios.



RQM 403 –
Executive
Overview

Requirements Management Training Progression

RQM 310 – Advanced
Requirements Management (Classroom)

CLR 101 –
Analysis of
Alternatives

CLR 250 –
Capabilities-
Based
Assessments

CLR 252 –
Developing
Requirements

RQM 110 – Core
Concepts for
Requirements
Management
(DL On-Line July 08)

CLM 041 –
Capabilities-Based
Planning
(On-Line Oct 07)

Deployment Schedule

Class	Deployment
CLR 250	April 2010
CLR 252	April 2010
RQM 310 Student Pilot	21 – 25 June 2010
RQM 310 First Offering	16 – 20 August 2010
RQM 310 in FY 11	6 offerings; One every other month

What Might the “Third Wave” of RM Training Look Like?

- ★ No more formal courses!
- ★ Take better advantage of technologies
 - Podcasts
 - On-line conferences
 - Go to the students
- ★ Discover the common problems

Requirements Management Training

- ★ How do we help “The Manager in the Muddy Boots”?
- ★ RM is NOT a career field
- ★ The RM has little time to become effective
- ★ Three waves of training – Using the right strengths
 - On-line
 - Classroom courses
 - Just-in-Time